

### REMARKS

Claims 1-34 are in the application as filed. Claims 1-22 are withdrawn from consideration. Claims 23-25 and 18-34 were rejected. The Examiner indicated that Claims 26 and 27 contain allowable subject matter and would be allowable if written in independent form. Consistent with the Examiner's suggestion Applicant has amended these claims above. Applicant has cancelled claims 23 and 24 and added the limitations of these claims into Claim 25. Applicant has also amended the other claims to depend from now amended claim 25.

### CLAIM OBJECTIONS

Claim 25 is objected to as the term "the perfluorinated moiety" lacks antecedent basis. Applicant has amended Claim 25 to avoid that problem.

Claims 28-29 are objected to as the term "the optical loss" lacks antecedent basis. Applicant has amended Claims 28 and 29 to avoid that problem.

### REJECTIONS UNDER 35 USC 102

Claims 23-25, 28-32 are rejected under 35 USC 102(b) as anticipated by Takezawa et al (US 5,093,888). The Examiner asserts that Takezawa et al. discloses a low loss optical device with all the limitations that are found in the above claims. Applicant respectfully disagrees with the Examiner's assessment. The materials of Takezawa are distinguishable from those herein. The materials disclosed by Takezawa were intended to

- 1) be used for 780nm versus the present application's 1550-1650 nm
- 2) have Tg of at least 130 degrees C (by high benzene content) **This compares with the below 50 degrees C by the present application (no need for benzene rings).**
3. have less than 40% by weight of Fluorine-content to keep refractive index high to match limited cladding materials available. **The present application does not have this limitation.**

Applicant further notes that the Takezawa '888 reference discloses only aromatic fluorinated polymers for use in the optical transmitting system that is the subject of the '888 invention (which is focused on polymers with aromatic moieties to increase heat resistance). In contrast to '888, the FO-8037 invention, with now amended Claim 25 is

limited to non-aromatic fluorinated polymers. Hence the FO-8037 invention is not anticipated by the '888 reference.

Claims 23 and 25 were also rejected as anticipated by Matsuda (US 6,160,074). Applicants respectfully disagree. The Matsuda '074 reference discloses fluorine-containing curable compositions comprising (A) a linear perfluoro compound and (B) a fluorinated organohydrogenpolysiloxane. While the compositions of FO-8037 contain linear perfluoro compounds (i.e., polymers), there is no disclosure or even a hint thereto that they contain fluorinated organohydrogenpolysiloxanes. In the Office action, there is reference on page 3 to the fact that Matsuda discloses an optical element (actually a composition) comprising thioether moieties of at least 0.05M (column 5-6). Upon checking columns 5-6 of the '074 patent, there is only a broad disclosure of "divalent hydrocarbon group which may be separated by at least one atom selected from oxygen, nitrogen, silicon, and sulfur...", which could correspond to a thioether group. However, this disclosure relates back to R6 in column 4, which is disclosure relating to the (B) fluorinated organohydrogenpolysiloxane and hence is not relevant to the present invention since the FO-8037 invention does not disclose this (B) component.

Furthermore, the Matsuda '074 teaches only fluorine-containing curable compositions and does not contain disclosure of optical elements made using these compositions.

Since the Matsuda '074 patent does not disclose optical elements made using a fluorinated polymer containing thioether moieties, this '074 reference does not anticipate the FO-8037 invention (as claimed in amended Claim 25).

#### REJECTIONS UNDER 35 USC 103

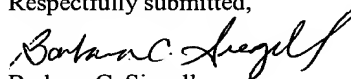
Claims 24 and 33-34 were rejected under 35 USC 103 over Matsuda et al. (US 6,160,074) in view of Takezawa et al. (US 5,093,888). For the above reasons, which are incorporated herein by reference, applicant asserts that neither Matsuda nor Takezawa make this invention obvious. Further, While Takezawa discloses an optical element made with fluorinated polymers, all of the polymers disclosed are aromatic polymers, which are outside the scope of applicants' amended Claim 25. While Matsuda discloses curable compositions comprising fluorinated polymers, there is no disclosure of their use in making optical elements and there is not disclosure on the fluorinated polymer

containing thioether moieties that are key to the present invention. Hence applicant maintains that there is no motivation for one skilled in the art to combine these two references. Applicants respectfully solicit the removal of the 103 rejection.

In view of the amendments submitted above and for the above reasons allowance of claims 25-34 is respectfully solicited.

If anything further is needed to advance allowance of these claims, the examiner is urged to contact applicants' attorney at the telephone number below.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Barbara C. Siegell".

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